### Chapter 1

# The Prevalence of Hunger Among Children in U.S. Households

### **Overview**

During the year ending in April 1999, one or more children were hungry at times in 219,000 U.S. households, or 0.6 percent of all households with children (table 1). The comparable statistic for the year ending

in August 1998 was 331,000 households, representing 0.9 percent of all households with children.

The difference between the 2 years represents, in part, a decline in the prevalence of hunger among children,

Table 1—Households with hunger among children, 1998 and 1999

Household characteristics	Total households with children			Households with hunger among children						
	1998	1999	Average	1998	1999	Average	1998	1999	Average	
						- Percent				
All households with children	38,036	37,884	37,960	331	219	275	0.9	0.6	0.7	
Household structure:										
Married-couple families	26,306	26,303	26,305	105	75	90	.4	.3	.3	
Female head, no spouse	8,807	8,744	8,775	193	123	158	2.2	1.4	1.8	
Male head, no spouse	2,153	2,187	2,170	20	17	19	.9	.8	.9	
Other households with child <sup>1</sup>	770	650	710	14	3	9	1.8	.5	1.2	
With children under age 6	17,087	17,231	17,159	85	69	77	.5	.4	.4	
Race and ethnicity: <sup>2</sup>										
White non-Hispanic	25,750	25,431	25,591	145	95	120	.6	.4	.5	
Black non-Hispanic	5,645	5,413	5,529	98	54	65	1.7	1.0	1.3	
Hispanic <sup>3</sup>	4,844	5,373	5,109	76	54	76	1.6	1.0	1.4	
Other non-Hispanic	1,797	1,667	1,732	13	15	14	.7	.9	.8	
Household income-to-poverty ratio:										
Under 1.00	6,012	5,701	5,857	178	111	144	3.0	1.9	2.5	
Under 1.30 (includes under 1.00)	8,162	7,583	7,872	238	129	184	2.9	1.7	2.3	
Under 1.85 <sup>4</sup> (includes under 1.30)	12,777	11,702	12,239	282	177	229	2.2	1.5	1.9	
1.85 and over <sup>4</sup>	21,943	22,504	22,224	37	38	38	.2	.2	.2	
Area of residence:										
Inside metropolitan area	30,729	30,790	30,759	251	193	222	.8	.6	.7	
In central city <sup>5</sup>	9,160	9,004	9,082	112	64	88	1.2	.7	1.0	
Not in central city <sup>5</sup>	16,210	16,616	16,413	118	104	111	.7	.6	.7	
Outside metropolitan area	7,308	7,094	7,201	80	26	53	1.1	.4	.7	

<sup>&</sup>lt;sup>1</sup> Households with children in complex living arrangements, e.g., children of other relatives or of unrelated roommate or boarder.

Source: Calculated by ERS from Current Population Survey Food Security Supplement data, August 1998 and April 1999, based on the children's food security scale.

<sup>&</sup>lt;sup>2</sup> Race/ethnicity of household reference person.

<sup>&</sup>lt;sup>3</sup> Hispanics may be of any race.

<sup>&</sup>lt;sup>4</sup> Subtotals do not add to national total because income is not reported for 8.7 percent of households.

<sup>&</sup>lt;sup>5</sup> Subtotals do not add to metropolitan area total because central city residence is not identified for some households.

and in part a seasonal difference (Andrews et al., 2000). The CPS Food Security Survey has been administered in the spring and fall in alternate years. Even though the questions ask about experiences and conditions over the past 12 months, there is evidence of a moderate seasonal effect in the measured prevalence rates of household food insecurity and hunger, with rates being somewhat higher in the fall (Andrews et al., 2000). For this reason, average rates for the 1998 and 1999 surveys are presented in table 1 and are the main reference for the rest of the discussion in this section. In addition to smoothing out any seasonal component, these 2-year averages are less affected by sampling variability, which can be problematic for some of the smaller subpopulations for which prevalence rates are reported.

### Prevalence of Children's Hunger, by Household Characteristics

Single-parent families, and especially single-mother families, are at higher risk of children's hunger than are two-parent families. The prevalence of children's hunger was six times as high in single-mother families as in two-parent families (1.8 percent compared with 0.3 percent). Single-mother families comprised 23 percent of all households with children, but accounted for 57 percent of households with hunger among children. The prevalence of hunger among children was also above the national average in single-father families (0.9 percent), although this rate was only half that of single-mother families.

Children's hunger is nearly three times more prevalent among racial and ethnic minorities than among the majority population. Children were hungry at times during the year in 1.3 percent of Black households and 1.4 percent of Hispanic households, compared with 0.5 percent of White non-Hispanic households. These differences are associated primarily with the lower incomes and higher poverty rates of minority households.

Hunger, as measured by the CPS Food Security Survey, is specifically "resource constrained" hunger. Every question in the scale specifies lack of money to buy food as the reason for the experience or condition. Hunger is expected, therefore, to be strongly associated with income, and this is, indeed, the case. Children's hunger was about 10 times as prevalent among households with incomes below 185 percent of the official poverty line as for those with incomes above that line.

In households below this income threshold, children are eligible for reduced-cost meals under the USDA School Lunch and School Breakfast Programs; infants, young children, and pregnant or breast-feeding mothers are eligible for WIC supplemental foods; and children's meals in the Child and Adult Care Food Program are reimbursed at higher levels.<sup>4</sup> At still lower levels of income, hunger was yet more prevalent; 2.5 percent of households with annual incomes below the official poverty line reported that children were hungry at times during the year, compared with 0.2 percent of households with incomes above 185 percent of the poverty line.

Rural and urban areas reported similar prevalence rates of children's hunger overall (0.7 percent), although the rate in central cities of metropolitan areas was somewhat higher (1.0 percent). The prevalence of hunger might be expected to be higher in nonmetropolitan than in metropolitan areas because the poverty rate is higher in nonmetropolitan areas. However, the metropolitan-nonmetropolitan pattern of children's hunger is consistent with that for food insecurity and hunger of all households (Andrews et al., 2000; Bickel, Carlson, and Nord, 1999). Lower costs of living in rural areas probably account for part of this hunger/poverty disjuncture. Poverty calculations do not take cost-ofliving differences among areas into account while measures of food insecurity and hunger directly gauge the severity of food deprivation resulting from lack of purchasing power. If living costs, on the whole, are lower in rural areas, even a poverty level income could stretch farther there, resulting in less food deprivation than in urban areas.

#### **How Many Children Were Hungry?**

Larger families are somewhat more vulnerable to hunger than smaller families, so the proportion of the Nation's *children* who live in households with children's hunger is slightly higher than the proportion of *households* with children's hunger. On average in 1998 and 1999, some 613,000 children (0.9 percent of all children) lived in the 275,000 households (0.7 percent of all households with children) where children's hunger occurred (table 2).

<sup>&</sup>lt;sup>4</sup> The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides targeted supplementary foods in conjunction with health care to women during and after pregnancy, to infants, and to children through age 4.

Table 2—Children in households with hunger among children, 1998 and 1999

Household characteristics	Total children in all households			Children in households with children's hunger <sup>1</sup>						
	1998	1999	Average	1998	1999	Average	1998	1999	Average	
						·····	Percent			
All children	71,282	71,418	71,350	716	511	613	1.0	0.7	0.9	
Household structure:										
Married-couple families	50,688	50,819	50,753	250	203	226	.5	.4	.4	
Female head, no spouse	16,012	16,134	16,073	395	261	328	2.5	1.6	2.0	
Male head, no spouse	3,452	3,526	3,489	52	29	41	1.5	0.8	1.2	
Other households with child <sup>2</sup>	1,130	939	1,035	19	18	19	1.6	2.0	1.8	
Race and ethnicity: <sup>3</sup>										
White non-Hispanic	46,515	45,934	46,224	256	191	223	.5	.4	.5	
Black non-Hispanic	10,753	10,733	10,743	231	111	171	2.1	1.0	1.6	
Hispanic <sup>4</sup>	10,685	11,485	11,085	193	147	170	1.8	1.3	1.5	
Other non-Hispanic	3,329	3,266	3,298	36	63	50	1.1	1.9	1.5	
Household income-to-poverty ratio:										
Under 1.00	13,801	13,301	13,551	416	297	357	3.0	2.2	2.6	
Under 1.30 (includes under 1.00)	18,481	17,475	17,978	547	342	445	3.0	2.0	2.5	
Under 1.855 (includes under 1.30)	27,381	25,840	26,610	621	429	525	2.3	1.7	2.0	
1.85 and over <sup>5</sup>	38,950	40,472	39,711	80	73	76	.2	.2	.2	
Area of residence:										
Inside metropolitan area	57,452	57,735	57,593	576	434	505	1.0	.8	.9	
In central city <sup>6</sup>	17,552	17,231	17,392	249	148	198	1.4	.9	1.1	
Not in central city <sup>6</sup>	30,190	31,002	30,596	281	238	260	.9	.8	.8	
Outside metropolitan area	13,831	13,683	13,757	140	77	108	1.0	.6	.8	

<sup>&</sup>lt;sup>1</sup>Not all children were hungry in some households with hunger among children.

Source: Calculated by ERS from Current Population Survey Food Security Supplement data, August 1998 and April 1999, based on the children's food security scale.

However, as noted earlier, not every child in house-holds reporting children's hunger experienced this resource-constrained hunger. The CPS Food Security Survey does not ask about the experience of each child separately, but rather whether any child in the house-hold experienced various forms of food deprivation. In some households classified as having hunger among children, only the older children were hungry, while younger children were protected from hunger. Thus, the number of children living in households with children's hunger (613,000) provides an upper bound estimate of the actual number of hungry children in

the Nation in this period. A lower-bound estimate is provided by the number of households with hungry children during the year (average 275,000 in 1998-99), since at least 1 child was hungry within each of these households.

## Trends in the Prevalence of Children's Hunger, 1995-99

The prevalence rate of children's hunger declined substantially from 1995, when household food security and hunger were first measured nationally in the

<sup>&</sup>lt;sup>2</sup>Households with children in complex living arrangements, e.g., children of other relatives or of unrelated roommate or boarder.

<sup>&</sup>lt;sup>3</sup>Race/ethnicity of household reference person.

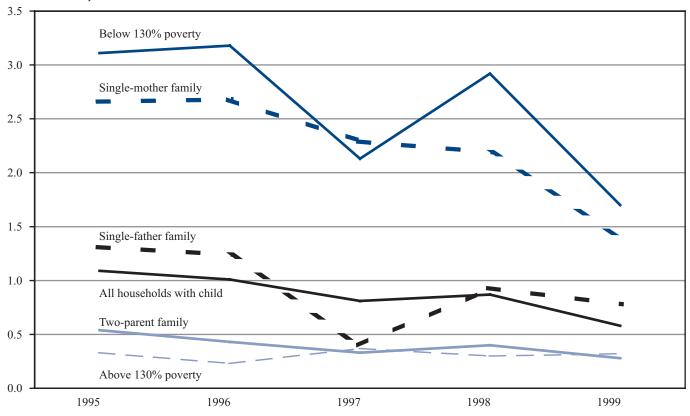
<sup>&</sup>lt;sup>4</sup>Hispanics may be of any race.

<sup>&</sup>lt;sup>5</sup>Subtotals do not add to national total because income is not reported for 8.7 percent of households.

<sup>&</sup>lt;sup>6</sup>Subtotals do not add to metropolitan area total because central city residence is not identified for some households.

Figure 1 **Prevalence of children's hunger, 1995-99** 

Prevalence rate—percent of households 1



<sup>&</sup>lt;sup>1</sup>Households without children were excluded from the denominators.

Source: Calculated by ERS based on data from Current Population Survey Food Security Supplements 1995-99.

United States, to 1999 (fig. 1). Overall the prevalence of children's hunger declined by about half, from 1.1 percent of all households with children in 1995 to 0.6 percent in 1999.<sup>5</sup>

The fall in hunger prevalence among children extended to all major demographic and income categories, including those most vulnerable to hunger. The prevalence rate of children's hunger among single-mother families declined from 2.7 percent in 1995 to 1.4 percent in 1999. Even among low-income households, the prevalence of children's hunger declined by almost half from 3.1 percent in 1995 to 1.7 percent in 1999. The decline for two-parent families was similar in proportion, although the percentage-point decline was much smaller (0.5 percent in 1995 to 0.3 percent in 1999). Only in households with incomes above 130 percent of the poverty line was the prevalence of hunger unchanged from 1995 to 1999, remaining at about 0.3 percent.

<sup>&</sup>lt;sup>5</sup> To avoid bias in the trend analysis due to seasonal differences in food insecurity, statistics from 1995 were compared with those from 1999 only, rather than to the 1998-99 averages. The food security survey was conducted in April in both 1995 and 1999. Data in figure 1 were not adjusted for inter-year differences in screening (Andrews et al., 2000; Bickel et al., 1999). These adjustments have a negligible effect on estimates of children's hunger because very few households with levels of deprivation this severe were affected by the screening protocol used in any year. In 1999, for example, the estimated prevalence of children's hunger based on the data as collected (the "full information" or "maximum sample" estimate presented in figure 1) was 0.58 percent, while the estimate for 1999 based on the common screen for strict comparability across all years 1995-99 was 0.55 percent.

#### **Children in Food-Insecure Households**

Children may be adversely affected by less severe levels of personal and household food deprivation than the range in which the children themselves experience resource-constrained hunger (Cook et al., 2001). A more comprehensive picture of children's food security status is provided by combining information from the household food security scale and the children's food security scale. Households with hunger among children are a subset of households with hunger among adults, which, in turn, are a subset of foodinsecure households.

A tabulation of households with children by these combined measures of food security is presented in table 3. In 1998, 82.4 percent of households with children were food secure, 13.3 percent were food insecure without hunger, 3.5 percent were food insecure.

cure with hunger among adults, but not children, and 0.9 percent were food insecure with hunger among both adults and children. In 1999, the corresponding percentages were 85.2 percent food secure, 11.5 percent food insecure without hunger, 2.7 percent food insecure with hunger among adults, but not children, and 0.6 percent food insecure with hunger among both adults and children.<sup>7</sup>

It should be noted that this tabulation combines information from two scales and does not represent a single underlying continuous scale of severity combining household-level and child-specific items. No such scale can adequately represent both household and child-specific food insecurity because these two phenomena, while closely related, lie on slightly different dimensions. See chapter 3 for a full discussion of the bidimensionality in the 18-item set.

Table 3—Food security and hunger status of households with children, 1998 and 1999

				Food insecure						
						With h	unger	With hunger		
						among adults, but not children		among adults and children		
		Food secure		Without hunger						
Household characteristics	Total									
	1,000	1,000	Percent	1,000	Percent	1,000	Percent	1,000	Percent	
	Panel A: Households with children, 1998									
All households with children	38,036	31,335	82.4	5,049	13.3	1,321	3.5	331	0.9	
Married-couple families	26,306	23,284	88.5	2,468	9.4	449	1.7	105	.4	
Female head, no spouse	8,807	5,692	64.6	2,183	24.8	739	8.4	193	2.2	
Male head, no spouse	2,153	1,727	80.2	308	14.3	98	4.6	20	.9	
Other households with child <sup>1</sup>	770	632	82.1	89	11.6	35	4.5	14	1.8	
Household income < 130% poverty	8,162	4,556	55.8	2,581	31.6	787	9.6	238	2.9	
	Panel B: Households with children, 1999									
All households with children	37,884	32,290	85.2	4,340	11.5	1,035	2.7	219	0.6	
Married-couple families	26,303	23,771	90.4	2,105	8.0	353	1.3	75	.3	
Female head, no spouse	8,744	6,146	70.3	1,890	21.6	586	6.7	123	1.4	
Male head, no spouse	2,187	1,817	83.1	280	12.8	72	3.3	17	.8	
Other households with child <sup>1</sup>	650	556	85.6	66	10.1	25	3.8	3	.5	
Household income < 130% poverty	7,583	4,525	59.7	2,278	30.0	651	8.6	129	1.7	

<sup>&</sup>lt;sup>1</sup>Households with children in complex living arrangements, e.g., children of other relatives or of unrelated roommate or boarder. Source: Calculated by ERS from Current Population Survey Food Security Supplement data, August 1998 and April 1999.

<sup>&</sup>lt;sup>6</sup> An alternative approach, discussed in more detail in chapter 2, is to specify a less severe threshold on the children's food security scale and classify households vis-à-vis that threshold as well as the children's hunger threshold.

<sup>&</sup>lt;sup>7</sup> A fourth category is logically possible, "food insecure with hunger among children but not adults." In data analyzed to date, no households were found in this category provided that the full 18item scale is used to identify households with hunger among adults. However, if only the 10 adult and household items are used to identify hunger among adults (using the scale that is normally applied to households without children), then a small proportion of households are classified as having hunger among children but not among adults.